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10/697,752	10/30/2003	Lawrence D. Bergman	YOR920030395US1	8753

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EXAMINER
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DAO, THUY CHAN

ART UNIT	PAPER NUMBER
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2192

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05/06/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/697,752	<b>Applicant(s)</b> BERGMAN ET AL.	
	<b>Examiner</b> Thuy Dao	<b>Art Unit</b> 2192	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 29-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____.                                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____.                         |

### **DETAILED ACTION**

1. In view of the Appeal Brief (hereafter "Brief") filed on January 29, 2009, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

2. Claims 29-36 have been examined. In this Office action, the examiner maintains ground of rejection over claims 29, 31, 32, and 34-36. Applicant's arguments with respect to the rejection of dependent claims 30 and 33 have been fully considered and are persuasive. Therefore, the rejection over dependent claims 30 and 33 has been withdrawn. However, upon further consideration/search, a new ground of rejection is made as set forth in details below.

### **Response to Arguments**

3. Applicants' arguments have been considered.

#### A. Independent claims 29 and 36 (Brief, pp. 4-8):

a) Limitations at issue "*record a procedure description comprising a series of actions performed by a user in the application user-interface*" (Brief, pp. 4-5).

The examiner respectfully disagrees with Appellants' assertions. Wolfman explicitly teaches:

*a user-interface of an existing application* (col.5, FIG. 2, user-interface of application SMARTedit, "an existing application" as recited in claim 29);

*a control of the user-interface of the existing application performed by a user in the application user-interface* (e.g., col.5, FIG. 2, said user-interface of application SMARTedit includes 4 buttons and one text display);

*record a procedure description comprising a series of actions* (e.g.,

"For example, a simple task for SMARTedit is to delete HTML comments from a text file. A user demonstrates this task by starting the macro recorder, moving the cursor to the next comment, selecting the comment with the shift and cursor keys, and pressing the delete key to delete it (Figure 2). She then stops the macro recorder. After this demonstration, one of SMARTedit's candidate programs is a program consisting of three actions of the form \move to the next occurrence of <!--, select to the next occurrence of -->, and delete the selection." (col.4: 60 – col.5: 26, emphasis added) and see further in col.4: 47- col.5: 26; col.12:56 - col.13: 6).

b) Limitations at issue *"customizing the control of the user-interface of the existing application by installing a user-interface control relating to the procedure description in the existing application for automatic execution of the procedure description and generation of the series of actions performed by the user when the user- interface control is activated"* (Brief, pp. 5-8).

The examiner respectfully disagrees with Appellants' assertions. Wolfman explicitly teaches:

customizing the control of the user-interface of the existing application by installing a user-interface control relating to the procedure description in the existing application (e.g., col.12, lines 12-23, an "enhanced" SMARTedit user-interface, i.e., the "original" user-interface in col.5, FIG. 2, now has been enhanced/customized with a

for automatic execution of the procedure description and generation of the series of actions performed by the user when the user-interface control is activated (e.g., an “enhanced” SMARTedit user-interface may have Performance Interaction Mode, in which it executes the macro recorded in FIG. 2:

[illegible]

Figure 4: Screenshot of SMARTedit enhanced with DIAMand. The task, as in Figure 2, is to delete all HTML comments, and the first one has been deleted. The interactions are lined up on the left of SMARTedit enhanced with DIAMand must have been installed, and operational to have this screenshot.

"The Run while sure" interaction immediately executes the learned program step by step until the system's confidence in the program at any step drops below a threshold (currently 99.9%). This interaction is a performance mode." (col.13: 12-16, emphasis added).

B. Dependent claims 30, 31, 32, 33, 34, and 35 (Brief, pp. 8-11):

a) Dependent claim 30 (Brief, pp. 8-9):

Applicant's arguments with respect to the rejection of dependent claim 30 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of US Patent No. 5,748,975 as set forth in details below.

b) Dependent claim 31 (Brief, page 9):

The examiner respectfully disagrees with Appellants' assertion. Wolfman explicitly teaches "*the operation of recording a procedure description performed by the user in the application user-interface comprises the step of registering the procedure capturer with the operating system to receive notification of user actions and system actions*" (e.g., col.5: 18-26, the macro recorder embedded in application SMARTedit must have been registered with the operating system to be able to record said keystrokes, cursor keys, and mouse clicks, all of which are managed by said operating system).

c) Dependent claim 32 (Brief, pp. 8-9):

The examiner respectfully disagrees with Appellants' assertion. Wolfman explicitly teaches "*the operation of recording a procedure description performed by the user in the application user-interface comprises the steps of: receiving notification of user action within the application interface at the procedure capturer; determining a result activated by user action at the procedure capturer; mapping the activated control*

*into a generic description at the procedure capturer adding the generic description to a procedure representation at the procedure capturer; determining if there are more user actions; and storing the procedure representation in the procedure capturer if there are no more user actions (e.g., col.4: 60 – col.5: 26,*

"For example, a simple task for SMARTedit is to delete HTML comments from a text file. A user demonstrates this task by starting the macro recorder, moving the cursor to the next comment, selecting the comment with the shift and cursor keys, and pressing the delete key to delete it (Figure 2). She then stops the macro recorder. After this demonstration, one of SMARTedit's candidate programs is a program consisting of three actions of the form: move to the next occurrence of <!--, select to the next occurrence of -->, and delete the selection."

(emphasis added).

d) Dependent claim 33 (Brief, pp. 8-9):

Applicant's arguments with respect to the rejection of dependent claim 33 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of US Patent Publication No. 2004/0078682 A1 as set forth in details below.

e) Dependent claim 34 (Brief, pp. 8-9):

The examiner respectfully disagrees with Appellants' assertion. Wolfman explicitly teaches "*the at least one processor is further operative to execute an installed control*" (e.g., col.12, lines 8-23, an "enhanced" SMARTedit user-interface by installing an "enhanced" SMARTedit application (SMARTedit enhanced with DIAManD now has been installed and has a screenshot as illustrated in FIG. 4), which now has a new Interaction Control Panel; wherein the new Interaction Control Panel is related to the macro recorded in FIG. 2, i.e., "relating to the procedure description in the existing application" as claimed).

f) Dependent claim 35 (Brief, pp. 8-9):

The examiner respectfully disagrees with Appellants' assertion. Wolfman explicitly teaches "*the operation of installing the user-interface control comprises the step of altering the appearance of at least one existing user interface control*" (e.g., col.5, FIG. 2, screenshot of the original SMARTedit; col.12, FIG. 4, screenshot of the enhanced SMARTedit).

### **Claim Rejections - 35 USC §102**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 29, 31, 32, and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfman (art of record, "Mixed Initiative Interfaces for Learning Tasks: SMARTedit Talks Back").

#### **Claim 29:**

Wolfman discloses an article for manufacture and an apparatus for customizing a control of a user-interface of an existing application comprising:

*a memory; and at least one processor (e.g., col.3:42 - col.4: 28), coupled to the memory operative to:*

*a user-interface of an existing application (col.5, FIG. 2, user-interface of application SMARTedit ("an existing application")) as recited in claim 29, lines 1 and 6-7);*

*a control of the user-interface of the existing application (e.g., col.5, FIG. 2, said user-interface of application SMARTedit includes 4 buttons and one text display);*



(i) *record a procedure description comprising a series of actions* (e.g., col.4: 29-34; col.4: 47- col.5: 26; col.12:56 - col.13: 6)

*performed by a user in the application user-interface* (e.g., col.4:28 - col.5: 27; FIG. 2 at col.5); and

(ii) *customizing the control of the user-interface of the existing application* (e.g., col.12, lines 8-23, an "enhanced" SMARTedit user-interface by installing an "enhanced" SMARTedit application (SMARTedit enhanced with DIAManD now has been installed and has a screenshot as illustrated in FIG. 4), which now has a new Interaction Control Panel; wherein the new Interaction Control Panel is related to the macro recorded in FIG. 2, i.e., "relating to the procedure description in the existing application" as claimed)

*by installing a user-interface control relating to the procedure description in the existing application* (e.g., col.13: 22-37; FIG. 4, col.12:12 - col.13: 6)

*for automatic execution of the procedure description and generation of the series of actions performed by the user when the user-interface control is activated* (e.g., col.13: 7-27; col.1: 1-28; col.4: 59 - col.5: 26).

#### **Claim 31:**

The rejection of claim 29 is incorporated. Wolfman explicitly teaches *"the operation of recording a procedure description performed by the user in the application user-interface comprises the step of registering the procedure capturer with the operating system to receive notification of user actions and system actions"* (e.g., col.5: 18-26, the macro recorder embedded in application SMARTedit must have been registered with the operating system to be able to record said keystrokes, cursor keys, and mouse clicks, all of which are managed by said operating system).

#### **Claim 32:**

The rejection of claim 29 is incorporated. The examiner respectfully disagrees with Appellants' assertion. Wolfman explicitly teaches *"the operation of recording a procedure description performed by the user in the application user-interface comprises*

*the steps of: receiving notification of user action within the application interface at the procedure capturer; determining a result activated by user action at the procedure capturer; mapping the activated control into a generic description at the procedure capturer adding the generic description to a procedure representation at the procedure capturer; determining if there are more user actions; and storing the procedure representation in the procedure capturer if there are no more user actions (e.g., col.4: 60 – col.5: 26,*

"For example, a simple task for SMARTedit is to delete HTML comments from a text file. A user demonstrates this task by starting the macro recorder, moving the cursor to the next comment, selecting the comment with the shift and cursor keys, and pressing the delete key to delete it (Figure 2). She then stops the macro recorder. After this demonstration, one of SMARTedit's candidate programs is a program consisting of three actions of the form: move to the next occurrence of <!--, select to the next occurrence of -->, and delete the selection."

(emphasis added).

**Claim 34:**

The rejection of claim 29 is incorporated. Wolfman explicitly teaches "*the at least one processor is further operative to execute an installed control*" (e.g., col.12, lines 8-23, an "enhanced" SMARTedit user-interface by installing an "enhanced" SMARTedit application (SMARTedit enhanced with DIAManD now has been installed and has a screenshot as illustrated in FIG. 4), which now has a new Interaction Control Panel; wherein the new Interaction Control Panel is related to the macro recorded in FIG. 2, i.e., "relating to the procedure description in the existing application" as claimed).

**Claim 35:**

The rejection of claim 29 is incorporated. Wolfman explicitly teaches "*the operation of installing the user-interface control comprises the step of altering the*

*appearance of at least one existing user interface control"* (e.g., col.5, FIG. 2, screenshot of the original SMARTedit; col.12, FIG. 4, screenshot of the enhanced SMARTedit).

**Claim 36:**

Claim 36 is an article of manufacture version, which recites the same limitations as those of claim 29, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 36.

**Claim Rejections – 35 USC §103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfman in view of US Patent No. 5,748,975 to Van De Vanter (art made of record, hereafter "Van De Venter").

**Claim 30:**

The rejection of claim 29 is incorporated. Wolfman discloses recording keystrokes, cursor moves, and mouse clicks (col.4: 49-54, col.5: 10-17; col.10: 46-54) does not explicitly disclose *the operation of recording a procedure description performed by a user in the application user-interface comprises the steps of transmitting at least one request for application user-interface structure information from a procedure capturer to an operating system and receiving the application user-interface structure information from the operating system at the procedure capturer.*

However, in an analogous art, Van De Vanter further discloses *the operation of recording a procedure description performed by a user in the application user-interface comprises the steps of:*

*transmitting at least one request for application user-interface structure information (e.g., FIG. 1, col.8: 33-67, Input Device 112 generates events from keystroke, cursor, mouse, each event has particular data structure)*

*from a procedure capturer to an operating system (e.g., FIG. 1, col.7: 25-46, Input Device 112 sends events to Operating System 120 and Keystroke Executive 130, col.7: 46 - col.8: 11) and*

*receiving the application user-interface structure information from the operating system at the procedure capturer (e.g., FIG. 2, col.9: 42-59, Operating System 120 and Keystroke Executive 130 send said event information to Typographical Display Processor 170 and Display 118, col.9: 8-41).*

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Van De Vanter's teaching into Wolfman's teaching. One would have been motivated to do so to record event stream such as keystrokes, mouse/cursor clicks, which are managed/controlled by the operating system as suggested by Van De Vanter (e.g., col.7: 25-46).

8. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfman in view of US Patent Publication No. 2004/0078682 A1 to Huang (art made of record, hereafter "Huang").

**Claim 33:**

The rejection of claim 29 is incorporated. Wolfman does not explicitly disclose *the operation of installing the control relating to the procedure description in the existing application comprises the steps of sending a request to an operating system from a control installer to install the control; creating and installing the control in the application user-interface through the operating system; and registering a callback at the operating system using a location supplied by the control installer.*

However, in an analogous art, Huang further discloses *the operation of installing the control relating to the procedure description in the existing application comprises the steps of:*

*sending a request to an operating system from a control installer to install the control (e.g., [0005], [0050]);*

*creating and installing the control in the application user-interface through the operating system (e.g., [0007], [0019], [0050]); and*

*registering a callback at the operating system using a location supplied by the control installer (e.g., [0009], [0012]).*

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Huang's teaching into Wolfman's teaching. One would have been motivated to do so to register a callback function for understanding whether a hardware status has been changed is to use the polling or interrupt mechanism to trigger the registered callback function as suggested by Huang (e.g., [0012]).

### **Conclusion**

9. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/  
Examiner, Art Unit 2192

/Tuan Q. Dam/  
Supervisory Patent Examiner, Art Unit 2192